

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
20 January 2005 (20.01.2005)

PCT

(10) International Publication Number
WO 2005/006257 A3

(51) International Patent Classification⁷: **G06T 11/00**

(21) International Application Number:
PCT/IB2004/051135

(22) International Filing Date: 6 July 2004 (06.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03102091.0 10 July 2003 (10.07.2003) EP

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

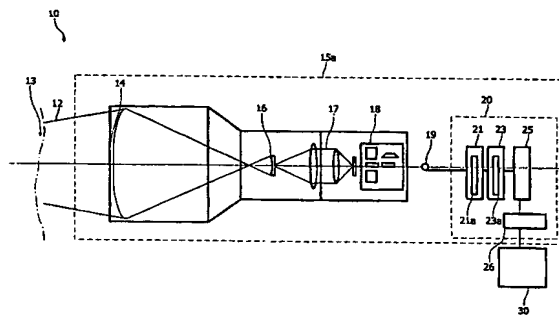
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,

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(54) Title: AN IMAGING SYSTEM, AN X-RAY IMAGING APPARATUS, A METHOD AND A COMPUTER PROGRAM ARRANGED FOR REDUCING AN ARTIFACT IN A THREE-DIMENSIONAL RECONSTRUCTED VOLUME



(57) Abstract: The invention relates to an imaging system (15) comprising artifact reduction means (20) arranged to correct for a ring-shaped artifact in the three-dimensional reconstructed volume. The artifact reduction means (20) comprises a first stage correction means (21) arranged to eliminate the structured noise of the output screen of the image intensifier of an X-ray imaging apparatus (10) using a first corrective image. Preferably, the first corrective image (21a) is pre-calculated and is stored in a suitable memory unit of a computer (not shown). A raw image of the patient is first processed with the first corrective image (21a). The thus obtained gain-corrected image is forwarded to an image deformation correction means (23), where a suitable unwarping function (23a) is being pre-stored. The resulting gain-corrected unwarped images are then made available to the second stage gain correction means (25), where a second corrective image (25a) is applied to the images resulting in a final set of images with a substantially reduced ring-shaped artifact. The final set of images is made available to the image reconstruction means (26) arranged for further processing of the final set of images, the result thereof being visualized on a computer monitor (30) for inspection purposes. The invention further relates to an X-ray imaging apparatus, a method for reducing an artifact in a three-dimensional reconstructed volume and a computer program.



MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Published:

— with international search report

(88) Date of publication of the international search report:
27 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.